

10. (once amended) The balun of claim 1, wherein a longitudinal dimension of said plurality of first coupled metal traces and said plurality of second coupled metal traces is less than one-quarter wavelength of an input signal received at said input.

11. (once amended) The balun of claim 1, wherein said plurality of first coupled metal traces and said plurality of second coupled metal traces are coplanar waveguide transmission lines or microstrip transmission lines.

Please add the following new claims 35- 39:

35 (new) The balun of claim 1, wherein said second capacitor is determined so as to electrically lengthen said first coupled metal traces and said second coupled metal traces.

36. (new) A balun, comprising:

a plurality of first coupled metal traces that are electrically coupled to each other;
a plurality of second coupled metal traces that are electrically coupled to each other and to said plurality of first coupled metal traces, one end of said plurality of second coupled metal traces connected to ground;

a single-ended input coupled to said plurality of first coupled metal traces, and a differential output taken from said plurality of second coupled metal traces;

at least one of said plurality of first coupled metal traces capacitively coupled to ground, thereby electrically lengthening said plurality of first coupled metal traces and said plurality of second coupled metal traces.